Hyperfine Interactions 1993 vol.80 N1-4, pages 1167-1172

Oscillatory free-induction decay signals in the angular distribution of nuclear radiation in ferromagnetic metals under strong inhomogeneous broadening

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Abstract

The problem of the oscillatory free induction decay in the angular distribution of nuclear radiations is theoretically examined for inhomogeneous linewidths, with and without the influence of the skin effect, utilizing the method of concatenation of perturbation factors. The second rank detection tensor applicable to gamma detected pulsed NMRON signals from ferromagnetic metals is examined for axial geometry. Important extensions to the pulse area theorem originally developed only for the first rank detection tensor are proposed for second rank tensors. © 1993 J.C. Baltzer AG, Science Publishers.

http://dx.doi.org/10.1007/BF00567481